No. 9700278

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

DEKALB Genetics Corporation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

ALFALFA

'DK 140'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of July in the year of our Lord one thousand nine hundred and ninety-nine.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions.* FORM APPROVED - OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a).

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
DEKALB Genetics Corporation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER

3. VARIETY NAME
DK140

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
3100 Sycamore Road
DeKalb, IL 60115

5. TELEPHONE *(include area code)*
(815) 758-3461

6. FAX *(include area code)*
(815) 758-4106

FOR OFFICIAL USE ONLY

PVPO NUMBER 9700278

FILING DATE: 04/17/97

FEES RECEIVED — FILING AND EXAMINATION FEE: $ 2450.00 DATE: 04/15/97

CERTIFICATION FEE: $ 300 DATE: 6/6/97

7. GENUS AND SPECIES NAME
Medicago Sativa

8. FAMILY NAME *(Botanical)*
Leguminosae

9. CROP KIND NAME *(Common name)*
Alfalfa

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.) (Common name)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Deleware

12. DATE OF INCORPORATION
June 15, 1988

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Robert Mark Lawson
DEKALB Genetics Corporation
3100 Sycamore Road
DeKalb, IL 60115

&

Robert E. Roman, Jr.
DEKALB Genetics Corporation
3100 Sycamore Road
DeKalb, IL 60115

14. TELEPHONE *(include area code)*
(815) 758-3461

15. FAX *(include area code)*
(815) 758-4106

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. [X] Exhibit A. Origin and Breeding History of the Variety
b. [X] Exhibit B. Statement of Distinctness
c. [X] Exhibit C. Objective Description of the Variety
d. [X] Exhibit D. Additional Description of the Variety
e. [X] Exhibit E. Statement of the Basis of the Applicant's Ownership
f. [X] Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)*
g. [X] Filing and Examination Fee ($2,460), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)?*
[ ] YES *(If "yes," answer items 18 and 19 below)* [X] NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
[ ] YES [ ] NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
[ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
[X] YES *(If "yes," give names of countries and dates)* [ ] NO
February 6, 1997

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*		SIGNATURE OF APPLICANT *(Owner(s))*	
Robert Mark Lawson			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Robert Mark Lawson			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Research, Director	4/9/97		

SD-470 (04-85) *(Previous editions are to be destroyed)*

(See reverse for instructions and information collection burden statement)

PVP APPLICATION - DK140 ALFALFA

EXHIBIT A - Origin and Breeding History

DK140 is a synthetic variety with 18 parent clones. Parents were selected based on clonal and/or progeny tests for forage yield, forage quality, fall dormancy reaction, persistence, pest resistance and multifoliolate leaf expression from breeding populations previously selected for resistance to one or more of the following pests: bacterial wilt, Fusarium wilt, Verticillium wilt, anthracnose (race 1), Phytophthora root rot, Aphanomyces root rot (race 1), and spotted alfalfa aphid. A combination of genotypic and phenotypic recurrent selection was used in the development of this variety. The parental populations from which all clones were derived trace to the following cultivars: Sterling (30%), Excalibur II (25%), 330 (20%), Rushmore (20%) and, LegenDairy (5%).

Breeder seed (Syn1) was produced on parent clones near Nampa, ID in 1994. Breeder seed was harvested as the bulk from all plants. The breeder has produced sufficient foundation seed (Syn2 or Syn3) for the projected life of the variety. Production of Syn3 foundation seed requires the consent of the breeder.

Alfalfa varieties are heterogeneous populations. Flower color and fall dormancy reaction were observed on 100 random plants at the Syn1, Syn2 and Syn3 generations. The population mean and variance for these traits was not significantly different over the three generations. No novel variants for any trait were observed during the three generations of seed increase. Forage yield was evaluated over multiple locations for both the Syn1 and Syn2 generations. Forage yield potential (expressed as percent of the check mean) was similar for both generations.

PVP APPLICATION - DK140 ALFALFA, CONTINUED

EXHIBIT B - Novelty Statement

This variety can be distinguished from others in the crop by using a number of different varietal traits. The variety most similar to DK140 is DK133. DK140 is distinct from DK133 in the following characters: Aphanomyces root rot resistance-- DK140 is rated highly resistant (HR) whereas, DK133 is rated resistant (R); spotted alfalfa aphid resistance--DK140 is rated highly resistant (HR) whereas, DK133 is rated as resistant (R).

Aphanomyces root rot resistance -evaluated by Forage Genetics, West Salem, WI 1994 Lab Test or Vista, West Salem, WI 1990 Lab Test:

Entry	% Resistant Plants	% Resistance Adjusted	
DK140 (HR)	55	55	**(Forage Genetics, 1994)**
WAPH-1 (R)	50	50	
Agate (S)	2	2	
Test mean	48.8		
L.S.D. 0.05	12.5		
C.V.(%)	25.9		
DK133 (R)	36	45	(Vista, 1990)
WAPH-1 (R)	40	50	
Agate (S)	0	0	
Test mean	34.3		
L.S.D. 0.05	10.6		
C.V.(%)	24.5		

Aphanomyces root rot resistance -evaluated by Forage Genetics, West Salem, WI 1997 Lab Test:

Entry	% Resistant Plants	% Resistance Adjusted
DK140 (HR)	57	55
DK133 (R)	43	41
WAPH-1 (R)	48	50
Agate (S)	1	1
Test mean	46.4	
L.S.D. 0.05	18.3	
C.V.(%)	29.0	

PVP APPLICATION - DK140 ALFALFA, CONTINUED

EXHIBIT B - Novelty Statement (Continued):

Spotted alfalfa aphid resistance - evaluated by Forage Genetics, Nampa, ID 1996 Lab Test or Vista, West Salem, WI 1989 Lab Test:

Entry	% Resistant Plants	% Resistance Adjusted
Test 1. Forage Genetics, 1996		
DK140 (HR)	43	56
CUF 101 (HR)	48	60
Arc (S)	2	3
Test mean	31.9	
L.S.D. 0.05	12.6	
C.V.(%)	24.3	
Test 2. Vista, 1989		
DK133 (R)	39	41
Baker (HR)	48	50
Ranger (S)	0	0
Test mean	28.0	
L.S.D. 0.05	13.2	
C.V.(%)	24.5	

FORM APPROVED: OMB NO. 0581-0055

EXHIBIT C
(Alfalfa)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
~~COMMODITIES SCIENTIFIC SUPPORT DIVISION~~
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY
ALFALFA *(Medicago sativa* sensu Gunn et al.*)*

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
	FG 3620	DK140

ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*

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PVPO NUMBER 9700278

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place numbers in the boxes to designate the expressions which are characteristic of the commerical generations of the application variety. Data for quantitative plant characters should be based on a minimum of 100 plants. Include leading zeros when necessary (e.g., [0][8][9]) for quantitative data. Comparative data should be determined from varieties entered in the same trial. Plant color may be precisely designated by using any recognized color chart, e.g., The Munsell Plant Tissue Color Charts.

1. WINTERHARDINESS:

[8] CLASS:

1 = Very Non-Winterhardy (CUF 101)
2 = Non-Winterhardy (Moapa 69)
3 = Intermediately Non-Winterhardy (Mesilla)
4 = Semi-Winterhardy (Lahontan)
5 = (Du Puits)
6 = Moderately Winterhardy (Saranac)
7 = (Ranger)
8 = Winterhardy (Vernal)
9 = Extremely Winterhardy (Norseman)

TEST LOCATION: West Salem, WI

2. FALL DORMANCY:

FALL DORMANCY (DETERMINED FROM SPACED PLANTINGS)

TESTING INSTITUTION AND LOCATION	DATE OF LAST CUT	DATE REGROWTH SCORED	REGROWTH SCORE OR AVERAGE HEIGHT				LSD .05
			APPLICATION VARIETY	CHECK VARIETIES*			
				Vernal	Ranger	Saranac	
Forage Genetics	9/95	10/95	10.2	5.1	8.0	11.3	2.1

* CUF 101, Moapa 69, Mesilla, Lahontan, Du Puits, Saranac, Ranger, Vernal, or Norseman as appropriate.

Specify scoring system used: Inches of regrowth

[5] Fall Growth Habit (Determined from Fall Dormancy Trials)

1 = Erect (CUF 101)
3 = Semierect (Mesilla)
5 = Intermediate (Saranac)
7 = Semidecumbent (Vernal)
9 = Decumbent (Norseman)

3. RECOVERY AFTER FIRST SPRING CUT (In Southwest, first cut after March 21):

[3]

1 = Very Fast (CUF 101)
3 = Fast (Saranac)
5 = Intermediate (Ranger)
7 = Slow (Vernal)
9 = Very Slow (Norseman)

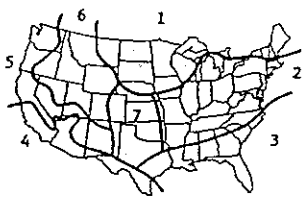
TEST LOCATION: West Salem, WI

4. AREAS OF ADAPTATION IN U.S. (Where tested and proven adapted):

[1] Primary Area of Adaptation

[2] [ ] Other Areas of Adaptation

1 = North Central
2 = East Central
3 = Southeast
4 = Southwest
5 = Moderately Winterhardy Intermountain
6 = Winterhardy Intermountain
7 = Great Plains
8 = Other *(Specify)* _____



5. FLOWERING DATE (When 10% of plants possess open flowers at time of first spring cut):

[ ][ ] Days Earlier Than [ ]

Same As [3]

[ ][ ] Days Later Than [ ]

1 = CUF 101
2 = Mesilla
3 = Saranac
4 = Vernal
5 = Norseman

TEST LOCATION: Nampa, ID

6. PLANT COLOR (Determined from healthy regrowth 3 weeks after first spring cut, controlling leafhoppers if necessary):

[ ] 1 = Very Dark Green (524) 2 = Dark Green (Vernal) 3 = Light Green (Ranger)

COLOR CHART VALUE (Specify chart used): _____):

APPLICATION VARIETY: _____

VERNAL: _____

TEST LOCATION: _____

7. CROWN TYPE (Determined from spaced plantings):

[1] Noncreeping Types: 1 = Broad (Vernal) 2 = Intermediate (Saranac) 3 = Narrow (CUF 101)

Creeping Types: 4 = Creeping Rooted (Rangelander) 5 = Rhizomatous (Rhizoma)

8. FLOWER COLOR (Determine frequency of plants for each color class as defined by USDA Agricultural Handbook No. 424 (Barnes 1972), allowing all plants in plot to flower):

[091] % Purple and Violet (Subclasses 1.1 to 1.4)

[009] % Variegated Other Than Blue (Subclasses 2.1, 2.2, 2.5 to 2.9)

[000] % Cream (Class 3)

[000] % Blue (Subclasses 2.3 and 2.4)

[000] % Yellow (Subclasses 4.1 to 4.4)

[000] % White (Class 5)

TEST LOCATION: Nampa, ID

9. POD SHAPE (Determine frequency of plants with the following pod shapes produced on well cross-pollinated racemes):

[087] % Tightly Coiled (One or more coils, center more or less closed)

[013] % Loosely Coiled (One or more coils, center conspicuously open)

[000] % Sickle (Less than 1 coil)

TEST LOCATION: Nampa, ID

10. PEST RESISTANCE: Provide in the appropriate column, trial data for application variety, and resistant (R) and susceptible (S) check varieties, synthetic generation tested, average severity index scores (ASI), least significant difference statistics (LSD .05), the institution in charge of test, year, and location of test, and whether test is a field or laboratory evaluation. Describe scoring system, and any test procedure which differs from standard methods proposed by Elgin (1982). Trial data from other test years or locations should be presented whenever available on a separate document as Exhibit D.
Seeds of the check varieties and germplasm lines listed below can be obtained from the USDA Field Crops Laboratory, Bldg. 001, Rm. 335, BARC-West, Beltsville, MD 20705. Although comparisons with check varieties listed below are preferred, comparisons with any appropriate check variety recommended by Elgin (1982) may be presented.

A. DISEASE RESISTANCE: DISEASE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Anthracnose, Race 1 *(Colletotrichum trifolii)*	Application	1	64	100		9.7	Forage Genetics 1995 West Salem, WI Lab Test
	Arc (R)		65 ✓	100			
	Saranac (S)		0 ✓	100			
	SCORING SYSTEM: Standard Test						
Anthracnose, Race 2 *(Collectotrichum trifolii)*	Application						
	Saranac AR (R)						
	Arc (S)						
	SCORING SYSTEM:						
Bacterial Wilt *(Corynebacterium insidiosum)*	Application	2	69	120	1.28	0.33	Forage Genetics 1996 West Salem, WI ✓ Field Test
	Vernal (R)		42 ✓	120	2.08		
	~~Norregensett (S)~~ Sonora (S)		1 ✓	120	4.23		
	SCORING SYSTEM: Standard Test - Field						
Common Leafspot *(Pseudopeziza medicaginis)*	Application						
	MSA-CW3AN3 (R)						
	Ranger (S)						
	SCORING SYSTEM:						

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10. A. PEST RESISTANCE (Continued):

DISEASE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Downy Mildew *(Peronospora trifoliorum)*	Application						
Isolate, if known:	Saranac (R)						
	Kanza (S)						
	SCORING SYSTEM:						
Fusarium Wilt *(Fusarium oxysporum f. medicaginis)*	Application	2	87	120	1.08	0.34	Forage Genetics 1996 West Salem, WI ✓Field Test
	~~Moapa 69 (R)~~ Agate (R)		54✓	120	1.81		
	~~Narragansett (R)~~ MNGN-1 (S)		3✓	120	4.04		
	SCORING SYSTEM: Standard Test - Field						
Phytophthora Root Rot *(Phytophthora megasperma f. medicaginis)*	Application	1	66→86✓	100		17.5	Forage Genetics 1995 West Salem, WI ✓Lab Test
	Agate (R)		~~33~~✓→43✓	100			
	Saranac (S)		0✓	100			
	SCORING SYSTEM: Standard Test ✓						
Verticillium Wilt *(Verticillium alboatrum)*	Application	2	36	100		12.4	Forage Genetics 1996 West Salem, WI Lab Test
	Vertus (R)		40✓	100			
	Saranac (S)		2✓	100			
	SCORING SYSTEM: Standard Test						
Other *(Specify)* Aphanomyces Root Rot (A. euteiches race 1)	Application	1	55	100		12.5	Forage Genetics 1996 West Salem, WI Lab Test
	(R) WAPH-1 (R)		50✓	100			
	(S) Agate (S)		2✓	100			
	SCORING SYSTEM: Standard Test						
Other *(Specify)*	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						

B. INSECT RESISTANCE:

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT DEFOLIATION	DEFOLIATION IN PERCENT OF RESISTANT CHECK	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Alfalfa Weevil *(Hypera postica)*	Application						
	Arc (R)			100			
	Saranac (S)						
	SCORING SYSTEM:						

10. B. INSECT RESISTANCE (Continued):

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT SEEDLING SURVIVAL	NUMBER OF SEEDLINGS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Blue Alfalfa Aphid *(Acyrthosiphon kondoi)*	Application						
	CUF 101 (R)						
	PA-1 (S)						
	SCORING SYSTEM:						
Pea Aphid *(Acyrthosiphon pisum)*	Application	1	45	100		14.2	Forage Genetics 1995 Nampa, ID Lab Test
	~~Kanza (R)~~ CUF 101 (R)		55✓	100			
	~~Ranger (S)~~ Vernal (S)		4✓	100			
	SCORING SYSTEM: Standard Test						
Spotted Alfalfa Aphid *(Therioaphis maculata)* *Biotype, if known:*	Application	2	56	100		12.6	Forage Genetics 1996 Nampa, ID Lab Test
	~~Kanza (R)~~ CUF 101 (R)		60✓	100			
	~~Ranger (S)~~ Arc (S)		3✓	100			
	SCORING SYSTEM: Standard Test						

INSECT	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Potato Leafhopper Yellowing *(Empoasca fabae)*	Application						
	MSA-CW3An3 (R)						
	Ranger (S)						
	SCORING SYSTEM:						
Other *(Specify)*	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						

C. NEMATODE RESISTANCE:

NEMATODE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Northern Root Knot *(Meloidogyne hapla)*	Application						
	Nev. Syn. XX (R)						
	Lahontan (S)						
	SCORING SYSTEM:						

10. C.' NEMATODE RESISTANCE (Continued):

NEMATODE	VARIETY	SYN. GEN. TESTED	PERCENT RESISTANT PLANTS	NUMBER OF PLANTS TESTED	ASI	ASI LSD .05	INSTITUTION, YEAR, LOCATION, FIELD OR LABORATORY
Southern Root Knot *(Meloidogyne incognita)*	Application						
	Moapa 69 (R)						
	Lahontan (S)						
	SCORING SYSTEM:						
Stem Nematode *(Ditylenchus dipsaci)*	Application	1	28	120		10.5	Forage Genetics 1995 West Salem, WI Lab Test
	~~Lahontan (R)~~ Vernema (R)		60 ✓	120			
	Ranger (S)		8 ✓	120			
	SCORING SYSTEM: Standard Test						
Other *(Specify)*	Application						
	(R)						
	(S)						
	SCORING SYSTEM:						

11. INDICATE THE VARIETY THAT MOST CLOSELY RESEMBLES THE APPLICATION VARIETY FOR EACH OF THE FOLLOWING CHARACTERS:

CHARACTER	VARIETY	CHARACTER	VARIETY
Winterhardiness	Vernal	Plant Color	Dart
Recovery After 1st Cut	DK127	Crown Type	DK127
Area of Adaptation	DK127	Combined Disease Resistance	DK133
Flowering Date	Saranac	Combined Insect Resistance	DK133

REFERENCES

Barnes, D.K. 1972. A System for Visually Classifying Alfalfa Flower Color. U.S. Dep. Agric. Handb. 424. 18 pp. (Note: Greenish cast of plate 6, A and B is an artifact of printing, actual colors a blend of yellow and white.)

Elgin, J.H., Jr., (ed.). 1982. Standard Tests to Characterize Pest Resistance in Alfalfa Cultivars. U.S. Dep. Agric. Tech. Bull. (In Press).

Gunn, C.R., W.H. Skrdla, and H.C. Spencer. 1978. Classification of Medicago sativa L. using legume characters and flower colors. U.S. Dep. Agric. Tech. Bull. 1574. 84 pp.

Munsell Color Co. 1977. Munsell Plant Tissue Color Charts. Munsell Color Co., Inc. Baltimore.

NOTE: Any additional descriptive information and supporting documentation may be provided as Exhibit D.

PVP APPLICATION - DK140 ALFALFA, CONTINUED

EXHIBIT D - Additional Description of the Variety

Part 1. Winter Survival

DK140 alfalfa has above average winter survival for it's fall dormancy classification. Data was collected using the Winter Survival test from the Green Book (March 1995 Amendment).

Winter survival of DK140 alfalfa (Average Severity Index) - Test conducted by Forage Genetics:

Test Location	Syn Gen	estab. mo/yr	reading mo/yr	DK140	1. Mavrick	2. Vernal	3. Dart	LSD (.05)	CV (%)
West Salem , WI	1	5/95	5/95	2.3	1.5	2.2	3.1	0.59	11.9
Madison, WI>	1	5/95	5/95	1.5	1.6	1.9	2.7	0.40	9.9

Part 2. Multifoliolate Leaf Expression

DK140 alfalfa has high expression of the multifoliolate leaf trait. Data was collected using the Multifoliolate Leaf Expression test from the Green Book (March 1995 Amendment).

Multifoliolate leaf expression of DK140 alfalfa (%ML and M.F.I.) - Test conducted by Forage Genetics at West Salem, WI in the field, 1995.

Variety	Syn Gen	%ML	ML index
DK140	**1**	**91**	**3.36**
1. Proof		88	3.25
2. MultiKing 1		55	2.10
3. Vernal		0	1.00
Test mean		88	3.12
L.S.D. (0.05)		7.5	0.41
C.V. (%)		9.5	8.80

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)

DEKALB Genetics Corporation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER

970027 8
ABA 08 Apr 1999

3. VARIETY NAME

DK140

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*

3100 Sycamore Road
DeKalb, IL 60115

5. TELEPHONE *(include area code)*

(815) 758-3461

6. FAX *(include area code)*

(815) 758-4106

7. PVPO NUMBER

9700278

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant *(individual or company)* a U.S. national or U.S. based company? [X] YES [ ] NO
If no, give name of country _____

10. Is the applicant the original owner? [ ] YES [X] NO ***If no, please answer the following:***

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO *If no, give name of country* _____

b. If original rights to variety were owned by a company, is the original owner(s) a U.S. based company?

[X] YES [ ] NO *If no, give name of country* _____

11. Additional explanation on ownership *(If needed, use reverse for extra space):*

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

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